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10/545,194

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Man-Yop Han

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DICKSTEIN SHAPIRO LLP  
1825 EYE STREET NW  
Washington, DC 20006-5403

EXAMINER

BRADFORD, CANDACE L

ART UNIT

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3634

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

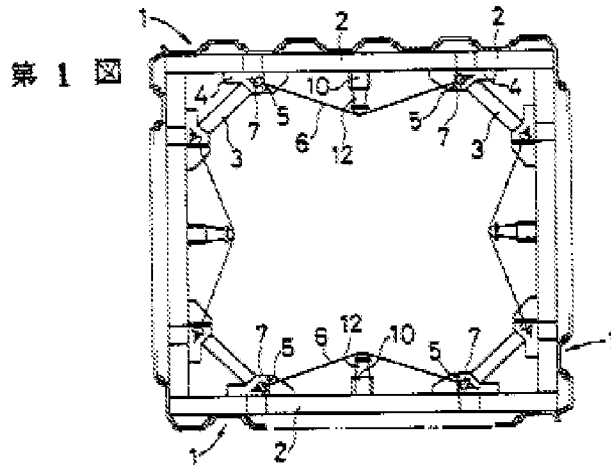
Claim 8 rejected under 35 U.S.C. 102(b) as being anticipated by Hosaka (JP63019334). Hosaka further discloses a tendon 6, a plurality of triangular tendon supports, as best seen in the figure above, being in contact with the tendon, in the middle portion of said wale 2, a tendon-anchoring unit, as best seen in Figure 2, at both ends of said wale, as best seen in the marked-up figure below, and a connecting brace for connecting the tendon to said triangular tendon supports and to said tendon-anchoring unit, as best seen in Figure 2, wherein the triangular tendon support is constituted by a vertical member and inclined member, as best seen in the marked-up figure below, or only by inclined members for forming a triangle, wherein said tendon-anchoring unit is a corner anchoring unit and is designed to be connected with said wale

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2 and to fix a tendon 6 at both sides of said corner.



### ***Claim Rejections - 35 USC § 103***

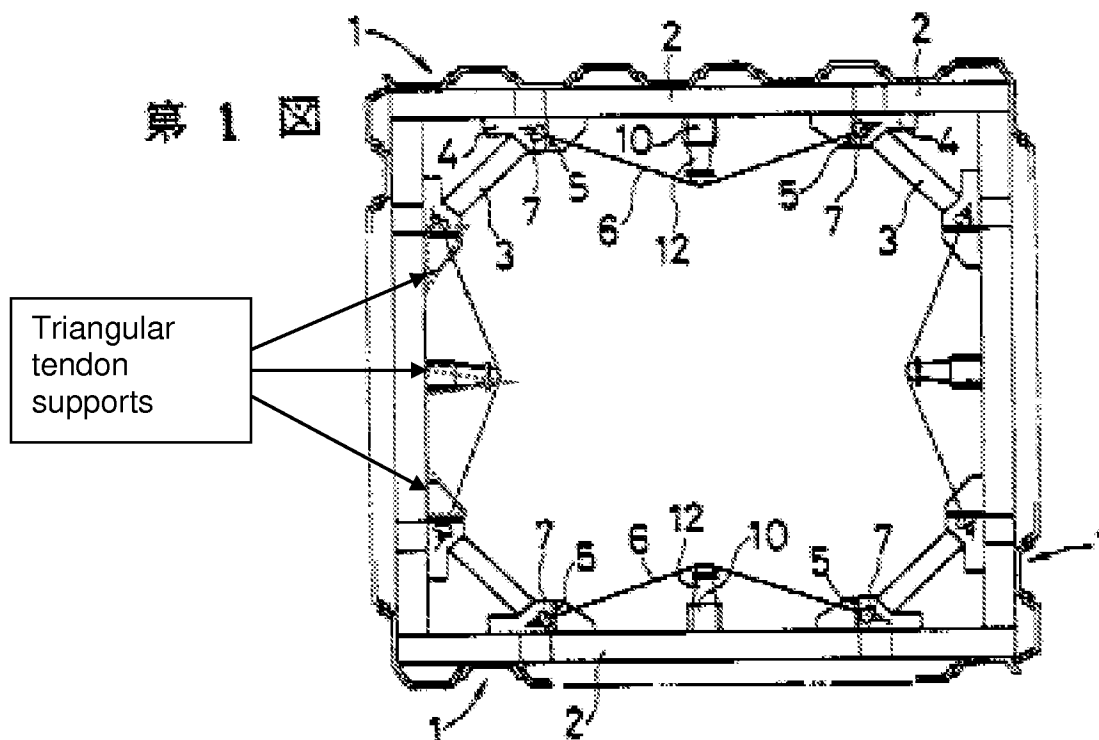
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosaka (JP63019334) in view of Inoue (3710578). Hosaka discloses a tendon 6, a prestressed wale 2, comprising a plurality of triangular tendon supports, as best seen in the marked-up figure below, being in contact with the tendon, in a middle portion of said wale, a tendon-anchoring unit 7 at both ends of said wale, and a connecting brace 4, for connecting the tendon to said triangular tendon supports and to said tendon-anchoring unit, wherein the triangular tendon support is constituted by a vertical member and inclined members, or only by inclined members for forming a triangle, as best seen in the marked-up figure below, but fails to disclose a strut constituted by a truss or a

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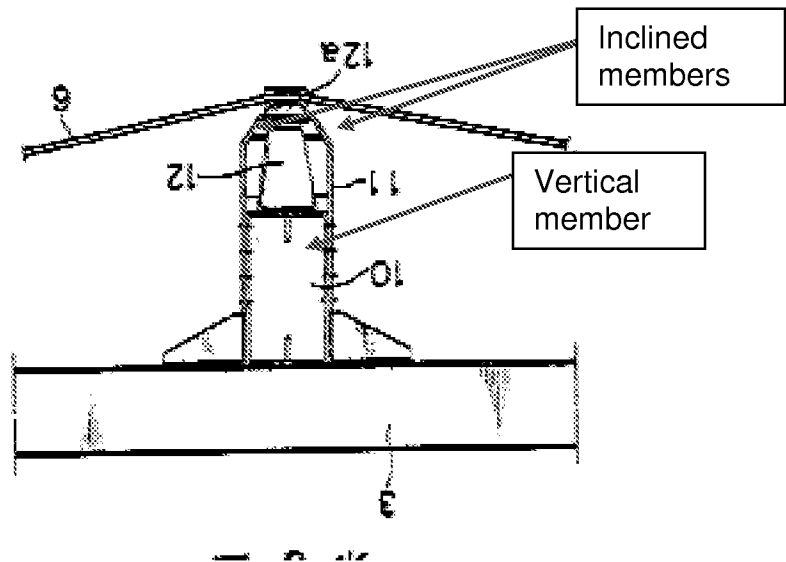
plurality of H-beams or an H-beam having a large cross section and supporting said tendon-anchoring unit. Inoue teaches the utility of struts 11,12, 18. Struts are commonly used to give additional support to a shoring apparatus. Therefore, it would be obvious to one of ordinary skill in the art to provide the shoring apparatus of Hosaka with shoring struts as taught by Inoue so as to provide additional support to a shoring



apparatus.

It has been held that the recitation that an element is “for” performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138./ Capable of. It should be further noted that the applicant has claimed a plurality of triangular tendon supports, which the applicant has shown above, however only claimed

that one triangular tendon support is constituted by a vertical member and inclined



members or only inclined members.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosaka (JP63019334) in view of Inoue (3710578). Inoue further teaches a support that is supported and connected by an intermediate pile 25 and a support beam 18 for preventing vertical buckling of the tendon support.

It has been held that the recitation that an element is “for” performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138./

Capable of

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosaka (JP63019334) in view of Inoue (3710578). Hosaka further discloses the system as defined in claim 2, wherein said tendon-anchoring unit 7, fixes a tendon 6, and couples with said wale 2, for applying a compression force supported by said inclined members or vertical member, as best seen in Figure 3 said inclined member or vertical member

being inserted into the tendon-anchoring unit. It is unclear to the examiner how the inclined members or vertical members of the applicants invention, as shown in the figures or disclosed in the specification can be inserted into the anchoring unit 13, 14 as best seen in the applicant's Figures 1 and 2 respectively.

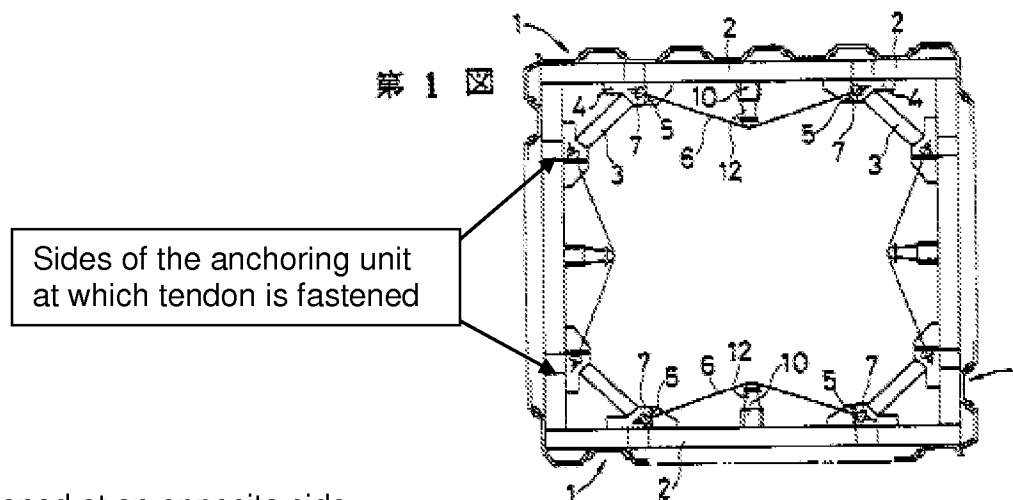
Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosaka (JP63019334) in view of Inoue (3710578). Hosaka further discloses the system as defined in claim 4, wherein said tendon-anchoring unit 7, a corner of the anchoring unit is reinforced by a reinforcing member , wherein said tendon is fixed at one corner of said anchoring unit and a member facing said corner is directly connected by the tendon through a hydraulic jack 12, and a portion connected with said wale has a length adjusting function, as best seen in Figure 3, but fails to disclose a tendon anchoring unit having the shape of an isosceles triangle. It is unclear to the examiner if "a member" of line 4 is the referring to the "reinforcing member" of line 3 or if the applicant is referring to a new member. Clarification is requested.

It would have been an obvious matter of design choice to make the tendon anchoring unit in the shape of a triangle or any other desired shape as to fit into a complementary component of the apparatus , since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). Further, changes in size or shape without special functional significance are not patentable. *Research Corp.v. Nasco Industries, Inc.*, 501 F2d 358; 182 USPQ 449 (CA 7) cert. Denied 184 USPQ 193; 43 USLW 3359 (1974).

It should further be noted that although no amendment has been made to claim 5, it depends from two claims (claims 1 and 4) both of which have been amended and thus the examiner has changed the basis of the previous rejection.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosaka (JP63019334) in view of Inoue (3710578). Hosaka in view of Inoue as advanced above fails to disclose an anchoring unit forming a trapezoid. It should be noted that the shape of the anchoring unit is strictly design choice, and can be changed as the components of the units are positioned as desired by the user, as best seen in the applicant's Figures 8a and 8b.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosaka (JP63019334) in view of Inoue (3710578). Hosaka further discloses the system as defined in claim 4, wherein said tendon-anchoring unit is provided with an inclined or vertical strut 3, a tendon 6, entered from one side of said tendon-anchoring unit is



fastened at an opposite side,

a single

wale 2, or a double wale is supported by said tendon-anchoring unit, as best seen in



Figure 3, and said tendon- anchoring unit is equipped with a jack 12, having a length adjusting function.

### ***Response to Arguments***

Applicant's arguments filed 11/4/10 have been fully considered but they are not persuasive. The applicant's attention is drawn to page 4 of the remarks. The applicant states the Hosaka and Inoue reference fail to disclose all of the limitations of claim 1. The examiner would like to state that the Hosaka in view of Inoue references read upon the claimed invention as recited above, specifically the tendon is located in the middle/inside portion between the wales 2, as best seen in Figure 1. The triangular shapes are best shown in the marked-up figure above. The applicant's attention is drawn to page 5 of the remarks. The applicant states the Hosaka reference can not show a plurality of triangular tendon supports and a pair of tendon anchoring units for a single waling system because Hosaka discloses that a single waling system includes only a pair of receivers and the jack. The examiner would like to note that the jack and receivers all support the tendon and are interpreted by the examiner to be triangular supports as they are all triangular in shape and provide support to the tendon as shown. The applicant states the Hosaka reference discloses that the receivers are the tendon anchoring units , then fails to provide the "plurality of triangular tendon supports, being in contact with the tendon". The examiner would like to state that it is clearly shown that element 7, of Hosaka comes into contact with the tendon, the examiner would like to note that the applicant has not claimed how they are in contact. The applicant states the Hosaka fails to disclose a triangular tendon support constituted by a vertical and

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inclined member or only by inclined members for forming a triangle. The inclined and vertical members, as claimed are best seen in the mark-up of Hosaka above. The applicant's attention is drawn to page 6 of the remarks. The applicant states the office action submits that element 4 of Hosaka is the claimed "connecting brace", the applicant does not agree with this. The examiner would like to state the connecting brace is interpreted by the examiner as a means for supporting and connecting the tendon and the anchoring unit, which element 4 of the Hosaka reference does. The applicant's attention is drawn to page 7 of the remarks. The applicant states that element 4 of Hosaka does not connect to the tendon to said triangular tendon supports and to said tendon anchoring unit. It should further be noted that the recitation that an element is "for" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138./ Capable of. The applicant's attention is drawn to page 8 of the remarks. The applicant states the Inoue reference does not disclose or suggest the use of a tendon , a plurality of triangular tendon supports, a tendon anchoring unit or a connecting brace. The examiner would like to note that Inoue is strictly used to teach the utility of struts for an earth retaining structure. It is the combination of the two references which teach the claimed invention. It should be noted a new rejection has been used for claim 3, due to the amendment of the claim. The applicant states the cited combination fails to disclose the limitations of claim 4. The examiner would like to note that claim 4 states "said inclined member or vertical members being inserted into the tendon anchoring unit". It is unclear to the examiner how the inclined members or

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vertical members of the applicants invention, as shown in the figures or disclosed in the specification can be inserted into the anchoring unit 13, 14 as best seen in the applicant's Figures 1 and 2 respectively. The applicant's attention is drawn to page 9 of the remarks. The applicant states the wire 6 of Hosaka is not fixed to one corner of an isosceles triangle formed by the tendon anchoring unit or at both corners of a trapezoid formed by the tendon anchoring unit as recited by claims 5 or 6 respectively. It would have been an obvious matter of design choice to make the tendon anchoring unit in the shape of a triangle or any other desired shape as to fit into a complementary component of the apparatus , since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). Further, changes in size or shape without special functional significance are not patentable. *Research Corp.v. Nasco Industries, Inc.*, 501 F2d 358; 182 USPQ 449 (CA 7) cert. Denied 184 USPQ 193; 43 USLW 3359 (1974). The examiner invites the attorney to call to set up an interview.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDACE L. BRADFORD whose telephone number is (571)272-8967. The examiner can normally be reached on 9am until 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Mitchell can be reached on (571) 272-7069. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Katherine Mitchell/  
Supervisory Patent Examiner, Art  
Unit 3634

/Candace L. Bradford/  
Patent Examiner  
Art Unit 3634  
January 11, 2011